

92. Pasture was fairly abundant within as well as outside forest limits during the year owing to an abnormally high flood having traversed the flat country and heavy rainfall having fallen in the hills. The banking up of the river by the erection of "protective bunds," it was noticed, had completely destroyed the grass and other surface growth in a few forests.

93. A comparison is made in the following statement of the number of animals licensed for grazing at full and privileged rates during the years 1893-94 and 1894-95 :—

Division.	No. of Animals.		Amount of Fees Collected.	
	1893-94.	1894-95.	1893-94.	1894-95.
			Rs.	Rs.
Sukkur ... ..	169,119	192,698	15,682	17,963
Naushahro ... ..	122,360	104,937	8,867	8,354
Hyderabad ... ..	141,369	105,049	12,194	10,889
Jerruck ... ..	93,663	81,718	11,599	11,375
Total ...	526,511	484,402	48,342	48,581

94. It is an undeniable fact that, owing to collusion with forest subordinates, professional as well as non-professional graziers register about half the number of the animals they possess, and the loss to forest revenues resulting from this form of corruption is therefore considerable. Now that departmental agency for the extraction of timber and firewood is no more to be resorted to, both the controlling and executive staff will be able to exercise better supervision over their subordinates, and it would not be a matter of surprise if the revenue from this source rose 30 per cent. at least in the near future.

(3) *Miscellaneous Produce.*

95. The principal articles of minor produce in the forests of the Sind Circle are palrás (pods of the *Acacia Arabica*) and lac, which is obtained from incrustations on babul and kundee branches produced by the insect *Coccus Lacca*, which punctures the bark. The right to collect these as well as other less important minor products is sold annually by auction. Honey, wax, gum and "ber" fruit, kinra, &c., are allowed to be taken free of charge.

Removal of minor products.

### CHAPTER III.

#### GROSS YIELD AND OUTTURN OF FOREST PRODUCE.

##### I.—Departmental Operations.

##### (a) Timber.

96. The figures in the following statement show the outturn of large and small timber resulting from departmental operations undertaken during the two years 1893-94 and 1894-95 :—

Outturn of timber.

Year.	TIMBER IN ROUGH.		SAWN TIMBER.			
	Logs.	Poles.	Planks.	Bolsters.	Sleepers.	Slabs.
	No.	No.	No.	No.	No.	No.
1893-94 ... ..	12,850	161,905	1	731	9,554	1,501
1894-95 ... ..	13,195	172,662	8,261	27	2,120	81
Increase ...	345	10,757	8,260	...	...	...
Decrease ...	...	...	...	704	7,434	1,420

97. Heavy babul and bahan timber is not so much in request for house building purposes as it once used to be, and it is apprehended that the local demand will continue diminishing owing to large importations from the Punjab of chir and deodar. It was not deemed advisable, therefore, to over-stock the sale depôts with material which could not find a ready sale. On the other hand, for small bahan timber, rafters, posts, &c., there is almost an unlimited market, and more than double the quantity the forests are capable of producing at present could easily be disposed of, and the matter is under consideration whether the simple coppice method of treatment should not be applied to the bahan forests of this Circle. The outturn in sawn timber, chiefly babul, is solely regulated by the requirements of the Public Works Department and the North-Western State Railway.

98. The following is an abstract of the details exhibited in Form No. 59:—

Description of timber.	Balance on 1st July 1894.	Outturn of the year.	Total.	Disposed of during the year.	Balance on 30th June 1895.	Remarks.
	No.	No.	No.	No.	No.	
<i>Sukkur Division—</i>						
Logs ...	6,189	6,269	12,458	4,901	7,557	
Poles ...	29,376	27,703	57,079	40,511	16,568	
<i>Naushahro Division—</i>						
Logs ...	76	13	89	89	...	
Slabs ...	30	...	30	3	27	
Poles ...	...	1,645	1,645	1,510	135	
<i>Hyderabad Division—</i>						
Logs ...	122	6,227	6,349	4,226	2,123	
Sleepers ...	2	2,120	2,122	1,987	135	
Planks ...	...	* 8,522	8,522	8,518	4	* 261 obtained by con-
Slabs ...	2	† 118	120	118	2	version of old stock.
Poles ...	21,630	143,314	164,944	162,607	2,337	† 37 do.
<i>Jerruck Division—</i>						
Logs ...	44	686	730	612	118	
Bolsters ...	...	27	27	27	...	

**SUKKUR.**—The operations of the year were restricted to the removal of material cut in the past year, as the sale depôts were over-stocked and a large quantity of bahan (*Populus Euphratica*) was being imported into Sukkur, Shikarpur and Rohri from the hitherto unexploited forests in the Khairpur State.

**NAUSHAHRO.**—Departmental agency is hardly ever employed in this division, owing to the long distance of the forests from the chief timber markets. The yield of the year represents a small consignment originally prepared for the North-Western Railway which, having not come up to the required specifications, was disposed of locally.

**HYDERABAD.**—The outturn of the year is just about half of what the forests of this division are capable of yielding, but owing to the congested state of the labour market departmental operations were a good deal interfered with.

**JERRUCK.**—For the first time this year, some of the indents received from the North-Western Railway and other public bodies were executed through private agency, a contractor having been found to undertake, after payment of royalty in the forests, to fell, saw and deliver the material at its destination and to have direct dealings with the consumers.

Timber supplied to Government Departments.

99. The following statement exhibits the quantity of timber supplied to the Gun Carriage Factory, Bombay, and other Departments :—

Name of Department.	Bahan posts and rafters.	Babul logs.	Babul sleepers.	Babul planks.	Babul and bahan props.	Babul bolsters.
	No.	No.	No.	No.	No.	No.
Executive Engineer, Sharigh ...	...	...	1,923	8,518	18,340	...
Hyderabad Municipality ...	743	...	...	...	...	...
Public Works Department ...	402	14	...	...	...	...
Gun Carriage Factory ...	...	571	...	...	...	...
North-Western Railway ...	...	...	...	4,598	...	24
Karachi Harbour Works ...	...	...	6,273	...	...	...
Total ...	1,145	585	8,196	13,116	18,340	24

(b) Firewood and Charcoal.

Classes of firewood.

100. For the purposes of sale, firewood is assorted into the following three classes :—

Class.	Size of billets.	Dimensions of stacks.
Steamer fuel ...	3 to 4 feet long and 6 to 18 inches in girth ...	15 × 15 × 3
Railway fuel ...	3 to 4 feet long and 12 to 30 inches in girth ...	15 × 15 × 3
Loco. fuel ...	2½ feet long and 7 to 30 inches in girth ...	50 × 5 × 4

101. The first is chiefly sold for consumption by ferry steamers, Municipal engines and for domestic use. Owners of local industries, such as cotton ginning factories and presses, oil and flour mills, distilleries, &c., purchase the second kind, and the third, as its name implies, is supplied to the North-Western Railway and sometimes to other purchasers.

Comparative yield of firewood and charcoal.

102. A comparison between the yields of the two years 1893-94 and 1894-95 in firewood and charcoal is shown in the statement given below :—

Year.	* Firewood.	Loco. fuel.	Charcoal.	REMARKS.
	Mds.	C. ft.	Mds.	
1893-94 ...	433,857	7,427,557	89,513	* Firewood includes both steamer and railway fuel.
1894-95 ...	371,727	7,583,234	90,711	
Increase ...	...	155,677	1,198	
Decrease ...	61,630	...	...	

103. The above figures show that the outturn both in firewood and charcoal has been pretty even and calls for hardly any remarks except that it does not represent the total yield of the areas set apart for working during the year under report. Departmental operations were retarded not only owing to the late subsidence of the abnormally high flood of the year, but also to the great difficulty experienced in all divisions to obtain sufficient labour throughout the working season, caused by the opening of such large public works as the Jamrao